



NOAA Perspective

**International Symposium on Remote Sensing of Environment
May 11, 2015**

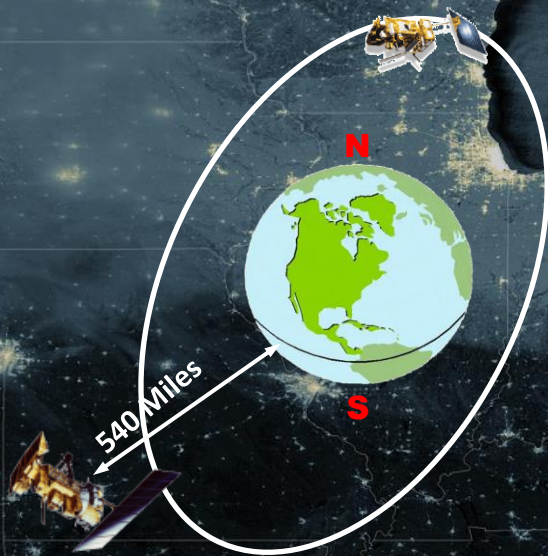
NOAA Satellite and Information Service

Dr. Stephen Volz, Assistant Administrator

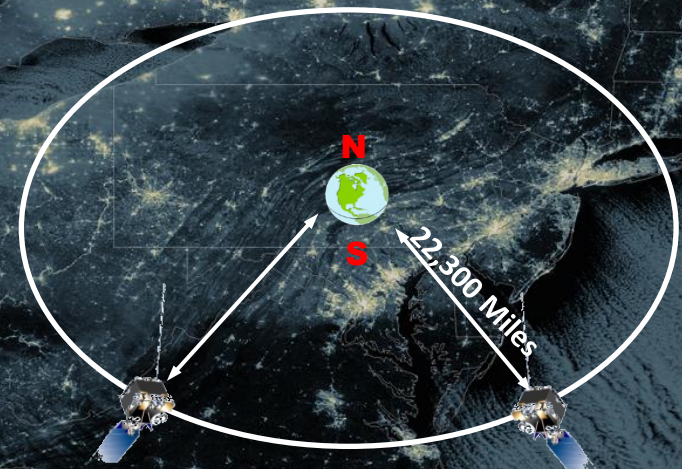


NOAA's Observational Paradigm Has Been: Two Orbits, One Mission

**Polar-orbiting Operational
Environmental Satellites (POES)
Followed by S-NPP and JPSS-1 thru -4**



**Geostationary Operational
Environmental Satellites (GOES),
Followed by GOES-R thru -U**



The current NOAA program plans include sustained constellations from these observation points through ~2038.

S-NPP image of North America

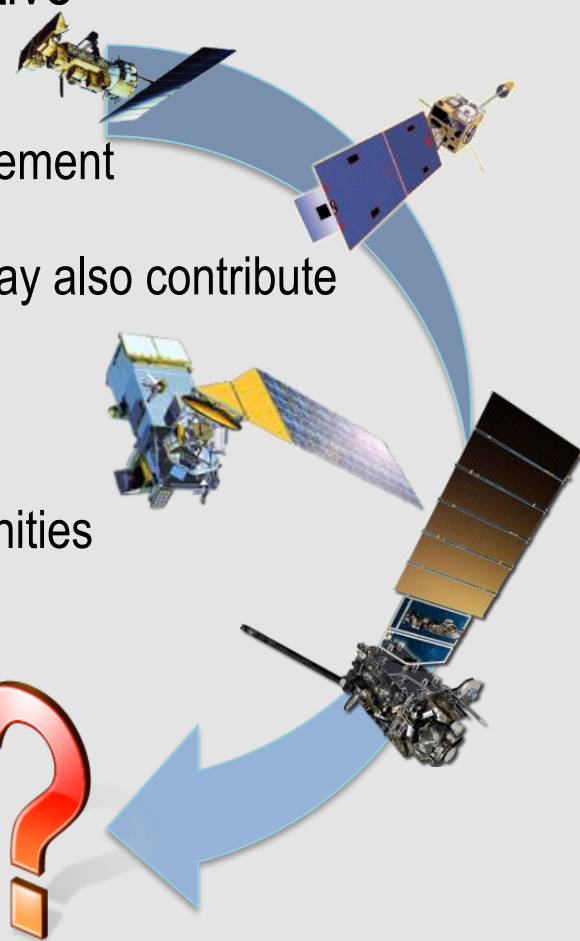
NOAA's Observations Add to the Broad International Coalition of Earth Observing Organizations to Support Weather and Climate Objectives



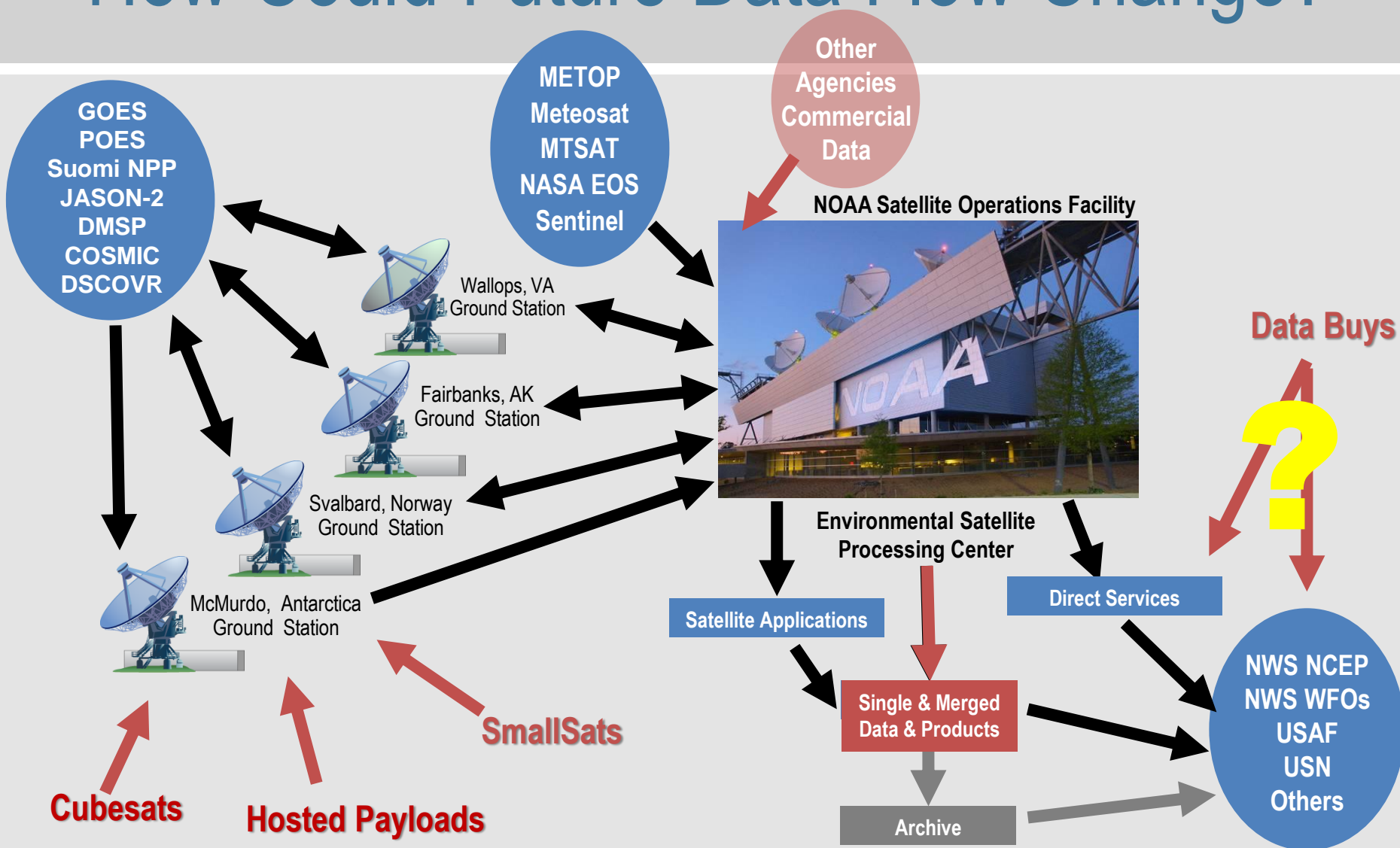
- NASA and ESA research satellites
- DOD, EUMETSAT & JMA operational satellites
- EC Sentinel satellites


What's Next?: Moving Beyond “Two Orbits”

- We are broadening our “polar satellite” LEO perspective
 - Core POES/JPSS satellites through ~2038 augmented with:
 - Cosmic-2 RO mission, Earth Observing Nanosatellite-MW
 - Additional complementary evolving and emerging measurement capabilities
 - Smallsats or hosted payloads, alone or in constellation, may also contribute
- We will also broaden our GEO perspective
 - GOES-R series through ~2036, may augment with others:
 - Alternative architectures, including hosted payload opportunities
 - Possibly to include alternative orbits
- Increasingly, the services we provide will be driving towards more integrated data products, merging:
 - Across platforms, both LEO and GEO
 - Across Agencies, using observations from multiple sources
 - Across public-private domain



How Could Future Data Flow Change?



The background of the slide features a stylized globe. The globe is composed of a grid of yellow squares, some of which contain binary digits (0s and 1s). The globe is set against a blue background with glowing white lines that suggest a network or data flow. The top of the slide has a dark, textured band that looks like a satellite view of Earth's surface.

What are the Challenges to our integrated observing approach?

- We need to address issues of observations related to:
 - Data formatting
 - Data quality
 - Data ownership
 - Data continuity

What are the Challenges to our integrated observing approach?



Increasingly, more of our products fuse different data sets, so we must learn to do that fusion efficiently and reflexively, regardless of where the data come from, and with confidence that the fusion will produce reliable information

A composite image of Earth from space, showing various satellite imagery of the planet's surface, including clouds, oceans, and landmasses. The top portion of the image is a light gray banner containing the title.

NOAA NESDIS Mission & Challenge

Our mission is to deliver accurate, timely, and reliable satellite observations and integrated products and to provide long-term stewardship for global environmental information in support of our Earth Observation mission.

Our challenge is to provide these observations and products reliably while improving the information content and evolving to stay current with the expanding complexity of the Earth Observing contributors



Questions?

A satellite image of Earth showing the Americas. North America is visible in the upper left, with green landmasses and white cloud patterns. Central America and the northern part of South America are visible below. The surrounding oceans are dark blue with swirling white cloud formations. The horizon of the Earth is visible on the right side of the image.